

42 to 65 kHz-A (Broadband)

Transformed to 100 ohms minimum (B1)

Power Rating:

- 1 kW @ 1% duty cycle
- CW⁽⁴⁾: 25W in B265, PM265
15W in M265, TM265

7 x 28.6 mm (1.13 in) PZT

Active Area: 45 cm² (6.9 in²)

Radiating Surface: Urethane

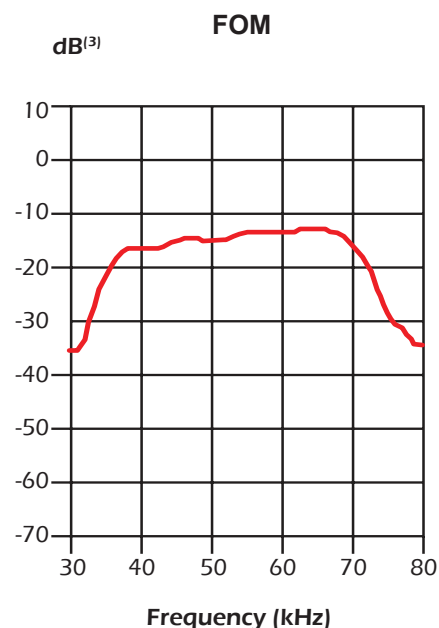
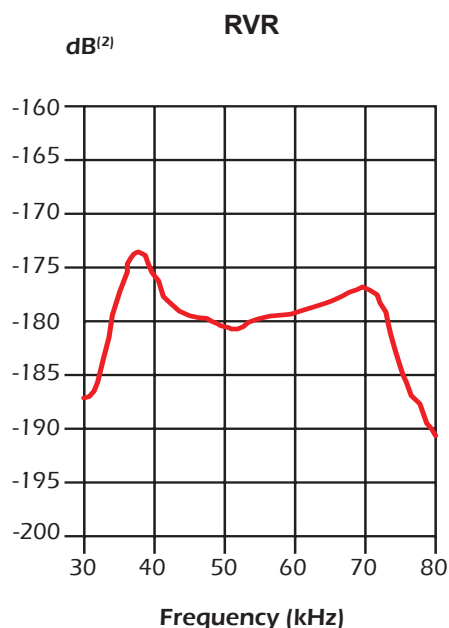
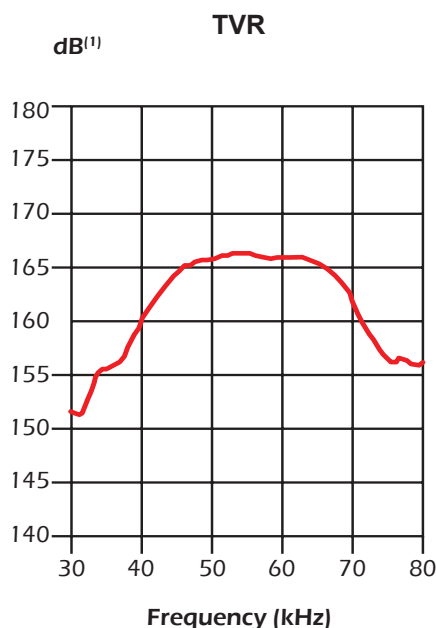
Q ≈ 2

Cable Type: C335

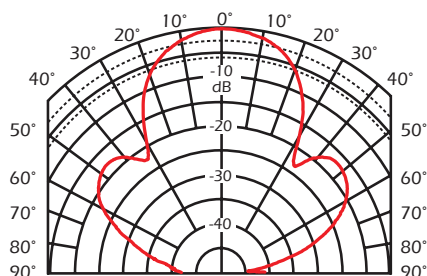
Cable Length: 10 m (33 ft)

Notes:

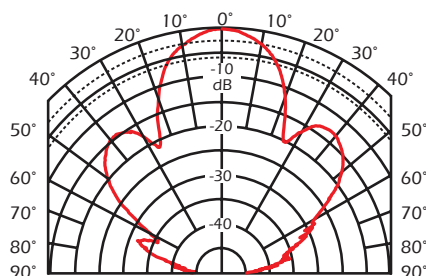
- (1) dB re 1 μPa per volt at 1 meter
- (2) dB re 1 volt per μPa
- (3) Sum of transmitting voltage response and receiving voltage response
- (4) CW Power ratings is for 20°C seawater temperature. Consult Airmar for different housing CW ratings.



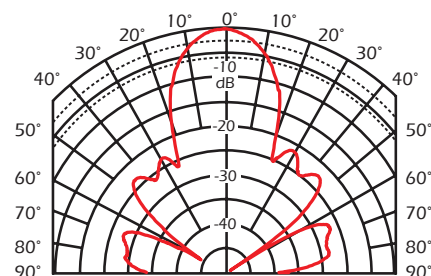
Transmit Radiation Pattern



Beamwidth	@ 42 kHz
-3 dB	25°
-6 dB	35°
-10 dB	43°



Beamwidth	@ 50 kHz
-3 dB	20°
-6 dB	28°
-10 dB	34°



Beamwidth	@ 65 kHz
-3 dB	16°
-6 dB	22°
-10 dB	28°

Technical Data Catalog

42 to 65 kHz-A (Broadband)

Note: Impedance data includes cable

Balanced Impedance Table (Nominal Value) in 20°C Water

Test Frequency (kHz)	Impedance Magnitude (Ω)	Phase Angle (°)	Series Resistance (Ω)	Series Reactance (Ω)	Parallel Conductance (mS)	Parallel Susceptance (mS)	Parallel Resistance (Ω)	Parallel Capacitance (pF)
40.00	305.87	-15.48	294.78	-81.62	3.15	0.87	317.38	3470.98
41.00	247.24	-19.88	232.50	-84.08	3.80	1.38	262.91	5339.42
42.00	203.32	-20.42	190.54	-70.94	4.61	1.72	216.95	6502.90
43.00	173.62	-19.56	163.60	-58.14	5.43	1.93	184.26	7138.63
44.00	152.61	-16.64	146.22	-43.70	6.28	1.88	159.28	6786.59
45.00	140.30	-12.05	137.20	-29.29	6.97	1.49	143.46	5262.71
46.00	134.39	-8.36	132.96	-19.55	7.36	1.08	135.83	3745.19
47.00	129.98	-5.84	129.31	-13.23	7.65	0.78	130.66	2651.98
48.00	126.28	-3.80	126.00	-8.37	7.90	0.53	126.55	1740.80
49.00	123.64	-1.69	123.58	-3.64	8.08	0.24	123.69	773.95
50.00	119.60	0.02	119.60	0.03	8.36	0.00	119.60	-7.13
51.00	115.87	3.54	115.65	7.15	8.61	-0.53	116.09	-1661.96
52.00	116.85	7.67	115.81	15.59	8.48	-1.14	117.91	-3495.61
53.00	120.09	11.08	117.86	23.07	8.17	-1.60	122.37	-4803.73
54.00	125.09	13.76	121.50	29.74	7.77	-1.90	128.78	-5602.29
55.00	131.10	15.44	126.37	34.90	7.35	-2.03	136.01	-5875.61
56.00	138.17	16.25	132.65	38.67	6.95	-2.03	143.92	-5757.18
57.00	144.18	16.30	138.39	40.46	6.66	-1.95	150.22	-5434.31
58.00	147.81	16.55	141.69	42.11	6.48	-1.93	154.20	-5288.48
59.00	154.64	17.23	147.70	45.81	6.18	-1.92	161.91	-5167.01
60.00	159.67	16.88	152.79	46.36	5.99	-1.82	166.86	-4823.14
61.00	164.96	17.59	157.25	49.84	5.78	-1.83	173.05	-4778.87
62.00	171.78	18.35	163.05	54.08	5.53	-1.83	180.99	-4704.40
63.00	182.10	18.89	172.28	58.97	5.20	-1.78	192.47	-4492.47
64.00	190.26	19.35	179.52	63.03	4.96	-1.74	201.65	-4330.09
65.00	203.20	20.59	190.22	71.47	4.61	-1.73	217.07	-4238.17
66.00	220.23	21.49	204.92	80.67	4.23	-1.66	236.68	-4010.94
67.00	244.22	21.86	226.65	90.94	3.80	-1.52	263.14	-3622.18
68.00	275.19	21.56	255.95	101.11	3.38	-1.34	295.89	-3124.79
69.00	319.03	20.17	299.48	109.98	2.94	-1.08	339.87	-2492.40
70.00	381.73	15.34	368.12	101.01	2.53	-0.69	395.84	-1576.06

42 to 65 kHz-A (Broadband)

Transformed to 100 ohms minimum with internal diplexer (B1)

Power Rating:

- 1 kW @ 1% duty cycle
- CW⁽⁴⁾: 25W in B265, PM265
15W in M265, TM265

7 x 28.6 mm (1.13 in) PZT

Active Area: 45 cm² (6.9 in²)

Radiating Surface: Urethane

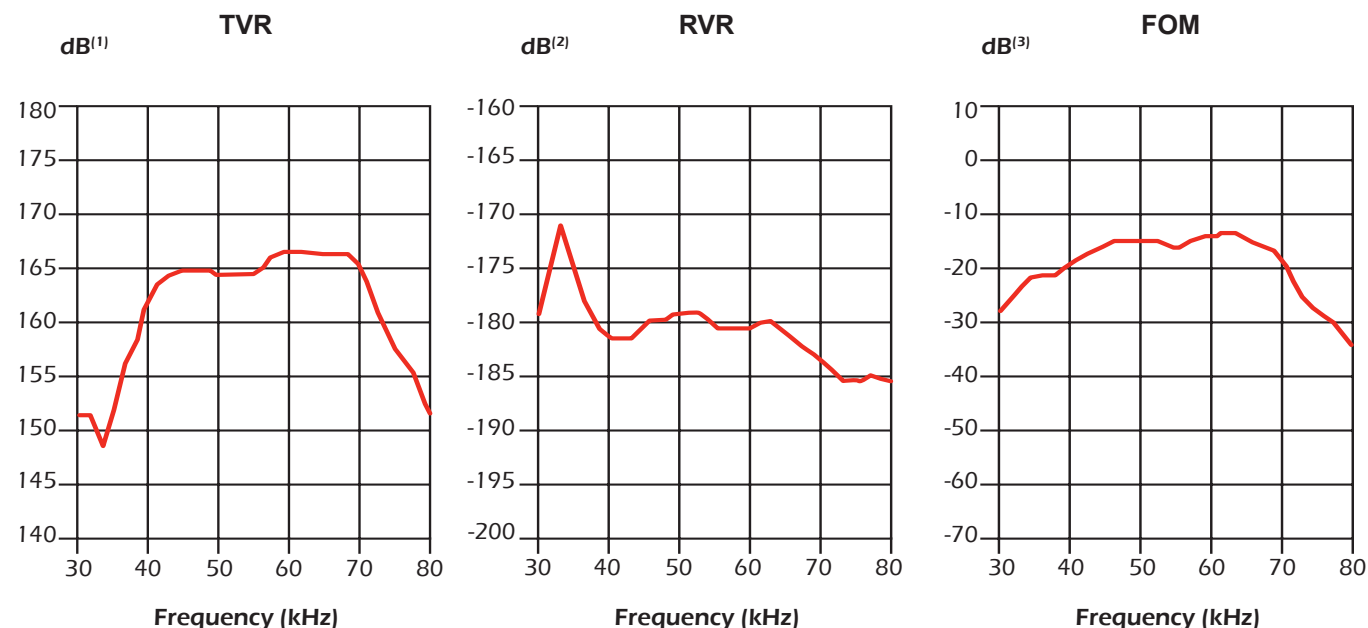
Q ≈ 2

Cable Type: C332

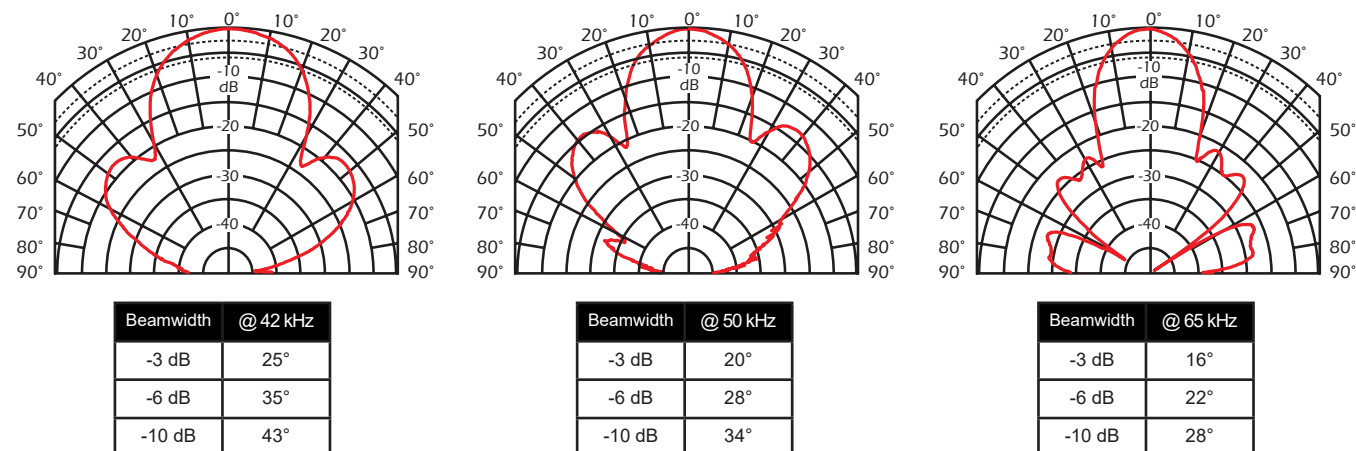
Cable Length: 10 m (33 ft)

Notes:

- (1) dB re 1 μPa per volt at 1 meter
- (2) dB re 1 volt per μPa
- (3) Sum of transmitting voltage response and receiving voltage response
- (4) CW Power ratings is for 20°C seawater temperature. Consult Airmar for different housing CW ratings.



Transmit Radiation Pattern



Technical Data Catalog

42 to 65 kHz-A (Broadband)

Note: Impedance data includes cable

Balanced Impedance Table (Nominal Value) in 20°C Water

Test Frequency (kHz)	Impedance Magnitude (Ω)	Phase Angle (°)	Series Resistance (Ω)	Series Reactance (Ω)	Parallel Conductance (mS)	Parallel Susceptance (mS)	Parallel Resistance (Ω)	Parallel Capacitance (pF)
30.00	369.73	83.91	39.20	367.64	0.29	-2.69	3487.58	-14268.01
31.00	458.23	80.95	72.10	452.52	0.34	-2.16	2912.20	-11064.50
32.00	612.89	75.00	158.64	592.00	0.42	-1.58	2367.81	-7838.46
34.00	1307.23	21.62	1215.29	481.58	0.71	-0.28	1406.12	-1319.17
35.00	895.70	-24.50	815.05	-371.44	1.02	0.46	984.32	2105.29
36.00	521.51	-39.81	400.58	-333.93	1.47	1.23	678.95	5428.02
38.00	236.80	-41.41	177.59	-156.64	3.17	2.79	315.76	11699.57
39.00	179.20	-35.91	145.14	-105.10	4.52	3.27	221.25	13357.34
40.00	142.39	-27.65	126.13	-66.07	6.22	3.26	160.74	12967.03
42.00	113.37	-4.79	112.98	-9.46	8.79	0.74	113.77	2790.29
43.00	112.00	5.56	111.47	10.86	8.89	-0.87	112.53	-3204.41
44.00	118.72	12.92	115.71	26.54	8.21	-1.88	121.80	-6812.68
46.00	132.25	19.33	124.79	43.78	7.14	-2.50	140.15	-8660.73
47.00	135.14	22.06	125.24	50.76	6.86	-2.78	145.81	-9412.51
48.00	140.50	24.34	128.01	57.91	6.48	-2.93	154.21	-9726.54
50.00	156.97	25.32	141.89	67.14	5.76	-2.73	173.66	-8673.82
51.00	162.23	23.71	148.53	65.24	5.64	-2.48	177.19	-7736.13
52.00	164.41	22.36	152.06	62.54	5.63	-2.31	177.77	-7080.60
54.00	162.16	17.95	154.26	49.98	5.87	-1.90	170.45	-5602.39
55.00	154.93	16.29	148.71	43.45	6.20	-1.81	161.40	-5239.04
56.00	145.43	16.49	139.45	41.28	6.59	-1.95	151.67	-5547.28
58.00	129.54	21.14	120.83	46.72	7.20	-2.78	138.89	-7639.77
59.00	126.81	25.10	114.84	53.79	7.14	-3.34	140.04	-9023.02
60.00	128.44	29.21	112.10	62.68	6.80	-3.80	147.15	-10079.31
62.00	136.41	33.56	113.67	75.41	6.11	-4.05	163.70	-10403.53
63.00	139.81	34.06	115.82	78.31	5.93	-4.01	168.77	-10120.97
64.00	140.07	33.41	116.92	77.13	5.96	-3.93	167.80	-9776.78
66.00	128.22	34.77	105.32	73.13	6.41	-4.45	156.10	-10726.58
67.00	120.52	38.43	94.41	74.91	6.50	-5.16	153.84	-12251.04
68.00	114.92	44.40	82.11	80.40	6.22	-6.09	160.84	-14249.97
70.00	120.19	60.97	58.32	105.09	4.04	-7.28	247.70	-16541.12
71.00	131.74	67.88	49.62	122.04	2.86	-7.03	349.82	-15762.33
72.00	147.83	72.91	43.45	141.30	1.99	-6.47	502.95	-14291.97
74.00	187.22	77.96	39.06	183.10	1.11	-5.22	897.37	-11234.73
75.00	208.62	79.19	39.12	204.92	0.90	-4.71	1112.62	-9991.31
76.00	231.26	79.96	40.31	227.72	0.75	-4.26	1326.69	-8916.77
78.00	283.38	80.75	45.57	279.69	0.57	-3.48	1762.21	-7106.74
79.00	314.90	80.70	50.89	310.76	0.51	-3.13	1948.60	-6313.52
80.00	351.93	79.83	62.14	346.40	0.50	-2.80	1993.06	-5564.04

80 to 130 kHz-B (Broadband)

Transformed to 100 ohms minimum (B1)

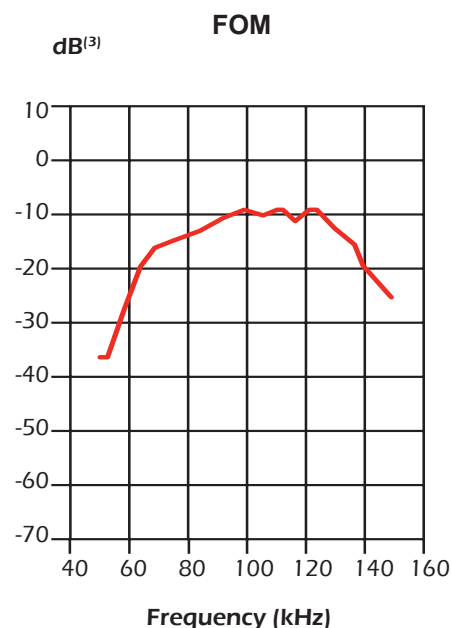
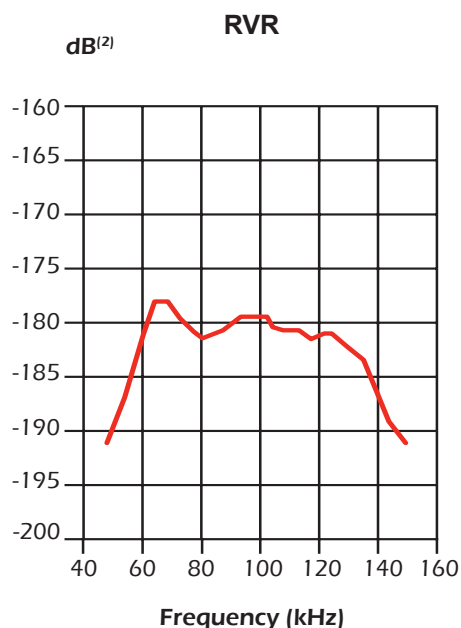
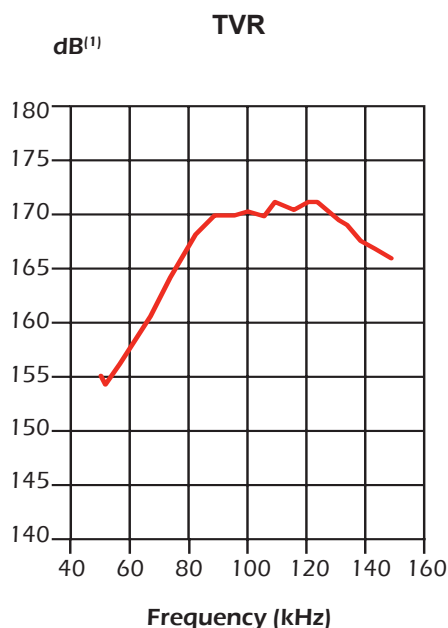
Power Rating:

- 2 kW @ 1% duty cycle
- CW⁽⁴⁾: 30W in R509, R609
25W in CM199, CM599,
PM111, R109,
R111, R599

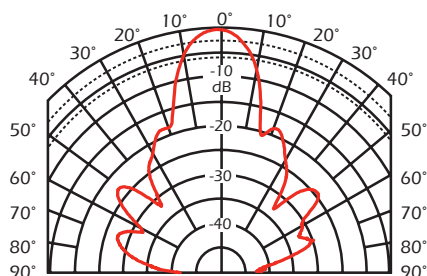
88 mm (3.46 in) PZT
Active Area: 61 cm² (9.4 in²)
Radiating Surface:
Cast Resin/Urethane
Q ≈ 2
Cable Type: C44-02
Cable Length: 10 m (33 ft)

Notes:

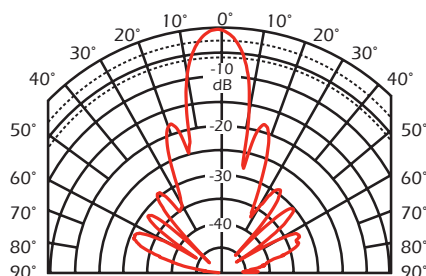
- (1) dB re 1 μ Pa per volt at 1 meter
- (2) dB re 1 volt per μ Pa
- (3) Sum of transmitting voltage response and receiving voltage response
- (4) CW Power ratings is for 20°C seawater temperature. Consult Airmar for different housing CW ratings.



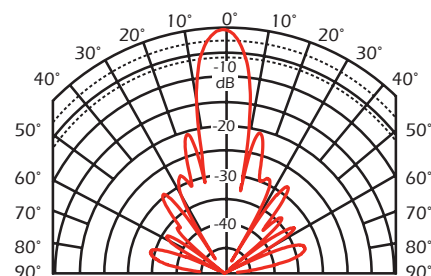
Transmit Radiation Pattern



Beamwidth	@ 80 kHz
-3 dB	13°
-6 dB	18°
-10 dB	23°



Beamwidth	@ 100 kHz
-3 dB	10°
-6 dB	13°
-10 dB	17°



Beamwidth	@ 130 kHz
-3 dB	8°
-6 dB	11°
-10 dB	14°

Technical Data Catalog

80 to 130 kHz-B (Broadband)

Note: Impedance data includes cable

Balanced Impedance Table (Nominal Value) in 20°C Water

Test Frequency (kHz)	Impedance Magnitude (Ω)	Phase Angle (°)	Series Resistance (Ω)	Series Reactance (Ω)	Parallel Conductance (mS)	Parallel Susceptance (mS)	Parallel Resistance (Ω)	Parallel Capacitance (pF)
70.00	352.49	9.16	348.00	56.10	2.80	-0.45	357.04	-1026.46
72.00	300.17	-7.39	297.68	-38.61	3.30	0.43	302.69	947.26
74.00	238.95	-15.07	230.73	-62.12	4.04	1.09	247.46	2339.85
76.00	193.20	-16.98	184.78	-56.41	4.95	1.51	202.00	3164.75
78.00	166.77	-14.88	161.18	-42.84	5.80	1.54	172.56	3142.75
80.00	152.62	-12.33	149.10	-32.60	6.40	1.40	156.22	2784.39
82.00	142.34	-10.22	140.08	-25.24	6.91	1.25	144.63	2418.34
84.00	136.54	-7.89	135.24	-18.75	7.25	1.01	137.84	1905.72
86.00	131.32	-5.61	130.69	-12.84	7.58	0.74	131.95	1377.97
88.00	128.21	-1.96	128.13	-4.39	7.80	0.27	128.28	483.53
90.00	131.64	1.95	131.56	4.48	7.59	-0.26	131.72	-456.88
92.00	141.65	3.79	141.34	9.37	7.04	-0.47	141.96	-807.72
94.00	150.64	2.53	150.50	6.66	6.63	-0.29	150.79	-497.04
96.00	156.64	-0.07	156.64	-0.19	6.38	0.01	156.64	12.52
98.00	159.32	-2.17	159.21	-6.05	6.27	0.24	159.44	386.78
100.00	162.35	-3.34	162.07	-9.46	6.15	0.36	162.62	571.22
102.00	169.56	-5.60	168.75	-16.56	5.87	0.58	170.38	898.66
104.00	174.55	-10.39	171.69	-31.47	5.64	1.03	177.45	1580.69
106.00	167.56	-15.14	161.74	-43.75	5.76	1.56	173.58	2339.90
108.00	157.16	-16.91	150.36	-45.72	6.09	1.85	164.27	2728.03
110.00	150.50	-15.71	144.88	-40.76	6.40	1.80	156.35	2603.83
112.00	153.63	-14.00	149.07	-37.18	6.32	1.58	158.34	2238.26
114.00	161.95	-15.32	156.20	-42.78	5.96	1.63	167.92	2277.07
116.00	163.62	-19.19	154.53	-53.78	5.77	2.01	173.25	2756.23
118.00	155.05	-21.19	144.57	-56.04	6.01	2.33	166.29	3144.16
120.00	152.02	-18.69	144.00	-48.73	6.23	2.11	160.49	2796.22
122.00	162.34	-17.10	155.16	-47.74	5.89	1.81	169.85	2363.38
124.00	175.29	-18.48	166.25	-55.57	5.41	1.81	184.83	2321.15
126.00	188.46	-22.04	174.69	-70.72	4.92	1.99	203.32	2515.12
128.00	197.94	-27.87	174.99	-92.52	4.47	2.36	223.91	2936.16
130.00	199.27	-34.00	165.20	-111.43	4.16	2.81	240.36	3435.51
132.00	197.51	-38.56	154.43	-123.13	3.96	3.16	252.60	3805.58
134.00	200.38	-43.53	145.29	-138.00	3.62	3.44	276.36	4082.07
136.00	199.95	-50.19	128.01	-153.60	3.20	3.84	312.32	4496.08
138.00	190.44	-57.56	102.16	-160.71	2.82	4.43	354.99	5110.90
140.00	174.34	-63.38	78.12	-155.86	2.57	5.13	389.06	5829.30